Heungsoo Kim

List of Publications by Year
in descending order

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126 papers	7,441 citations	70961 41 h-index	53109 85 g-index
130 all docs	130 docs citations	130 times ranked	7882 citing authors

#	Article	IF	Citations
1	Laser Processing of Energy Storage Materials. , 2021, , 59-73.		1
2	ZnO Nanoparticle/Graphene Hybrid Photodetectors via Laser Fragmentation in Liquid. Nanomaterials, 2020, 10, 1648.	1.9	18
3	Tunable permittivity of La-doped BaSnO₃ thin films for near- and mid-infrared plasmonics. Journal Physics D: Applied Physics, 2020, 53, 365103.	1.3	6
4	Light tunable plasmonic metasurfaces. Optics Express, 2020, 28, 22891.	1.7	1
5	Laser processing of plasmonic metal oxides and phase change materials. , 2020, , .		0
6	Laser processing of titanium: oxide formation for electronic applications. , 2020, , .		1
7	VO2-based switchable radiator for spacecraft thermal control. Scientific Reports, 2019, 9, 11329.	1.6	63
8	Superconducting properties of tin-based ENZ and hyperbolic metamaterials. Physica C: Superconductivity and Its Applications, 2019, 565, 1353511.	0.6	2
9	Control of metal-insulator transition temperature in VO2 thin films grown on RuO2/TiO2 templates by strain modification. AIP Advances, 2019, 9, .	0.6	18
10	Thermally Induced Magnetic Anisotropy in Nickel Films on Surface Acoustic Wave Devices. IEEE Transactions on Magnetics, 2019, 55, 1-4.	1.2	12
11	Hierarchical laser patterning of indium tin oxide thin films. Optical Materials Express, 2019, 9, 3035.	1.6	14
12	Observation of the out-of-plane magnetization in a mesoscopic ferromagnetic structure superjacent to a superconductor. Applied Physics Letters, 2018, 113, 162601.	1.5	2
13	Tunable Metamaterials Based on the Metal-Insulator Transition in Vanadium Oxide. , 2018, , .		0
14	Strain Effects in Epitaxial VO₂ Thin Films on Columnar Buffer-Layer TiO₂/Al₂O₃ Virtual Substrates. ACS Applied Materials & Interfaces, 2017, 9, 1577-1584.	4.0	49
15	Laser processing of VO2 thin films for THz devices and metamaterials. , 2017, , .		1
16	Ultrafast Phase Transition Dynamics in Strained Vanadium Dioxide Films. Advanced Materials Interfaces, 2017, 4, 1700810.	1.9	13
17	Strain effect in epitaxial VO2 thin films grown on sapphire substrates using SnO2 buffer layers. AIP Advances, 2017, 7, .	0.6	17
18	Laser-processing of VO2 thin films synthesized by polymer-assisted-deposition. Applied Surface Science, 2017, 397, 152-158.	3.1	17

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19	Laser additive manufacturing of embedded electronics. , 2017, , 319-350.		7
20	Ultrafast Insulator-Metal Transition in Strained Vanadium Dioxide Films. , 2017, , .		0
21	Harnessing the metal-insulator transition for tunable metamaterials. , 2017, , .		0
22	Broadband terahertz generation using the semiconductor-metal transition in VO2. AIP Advances, 2016, 6, .	0.6	19
23	Enhanced superconductivity in aluminum-based hyperbolic metamaterials. Scientific Reports, 2016, 6, 34140.	1.6	24
24	Laser-induced Forward Transfer of Ag Nanopaste. Journal of Visualized Experiments, 2016, , e53728.	0.2	10
25	Laser-induced forward transfer (LIFT) of congruent voxels. Applied Surface Science, 2016, 374, 42-48.	3.1	26
26	Laser 3D micro-manufacturing. Journal Physics D: Applied Physics, 2016, 49, 223001.	1.3	88
27	Polycrystalline VO2 thin films via femtosecond laser processing of amorphous VO x. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	10
28	Laser printing and femtosecond laser structuring of electrode materials for the manufacturing of 3D lithium-ion micro-batteries. Proceedings of SPIE, 2016, , .	0.8	3
29	All-optical short pulse translation through cross-phase modulation in a VO_2 thin film. Optics Letters, 2016, 41, 238.	1.7	1
30	Laser forward transfer of solder paste for microelectronics fabrication. Proceedings of SPIE, 2015, , .	0.8	7
31	Vanadium dioxide base picosecond electromagnetic pulse generator. , 2015, , .		0
32	Laser-induced forward transfer of silver nanopaste for microwave interconnects. Applied Surface Science, 2015, 331, 254-261.	3.1	39
33	Active terahertz metamaterials based on the phase transition of VO2 thin films. Thin Solid Films, 2015, 596, 45-50.	0.8	53
34	Laser forward transfer using structured light. Optics Express, 2015, 23, 422.	1.7	32
35	Spatially modulated laser pulses for printing electronics. Applied Optics, 2015, 54, F70.	2.1	16
36	Laser embedding electronics on 3D printed objects. , 2014, , .		7

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37	Fs-laser microstructuring of laser-printed LiMn₂O₄electrodes for manufacturing of 3D microbatteries. Proceedings of SPIE, 2014, , .	0.8	3
38	Laser-printed/structured thick-film electrodes for Li-ion microbatteries. Proceedings of SPIE, 2014, , .	0.8	6
39	Laser materials processing for micropower source applications: a review. Journal of Photonics for Energy, 2014, 4, 040992.	0.8	11
40	Laser processing of conductive oxides for near-IR plasmonics. , 2014, , .		0
41	Optimization of the semiconductor-metal transition in VO2 epitaxial thin films as a function of oxygen growth pressure. Applied Physics Letters, 2014, 104, .	1.5	61
42	Laser-printing and femtosecond-laser structuring of LiMn2O4 composite cathodes for Li-ion microbatteries. Journal of Power Sources, 2014, 255, 116-124.	4.0	83
43	Experimental demonstration of superconducting critical temperature increase in electromagnetic metamaterials. Scientific Reports, 2014, 4, 7321.	1.6	35
44	Generation of transparent conductive electrodes by laser consolidation of LIFT printed ITO nanoparticle layers. Applied Physics A: Materials Science and Processing, 2013, 111, 799-805.	1.1	20
45	Laser printing of conformal and multi-level 3D interconnects. Applied Physics A: Materials Science and Processing, 2013, 113, 5-8.	1.1	37
46	Impact of reduced dimensionality on the magnetic and magnetocaloric response of La0.7Ca0.3MnO3. Applied Physics Letters, 2013, 102, .	1.5	131
47	Laser processing of 2D and 3D metamaterial structures. Proceedings of SPIE, 2013, , .	0.8	5
48	Optimization of Al-doped ZnO films for low loss plasmonic materials at telecommunication wavelengths. Applied Physics Letters, 2013, 102, 171103.	1.5	77
49	Laser transfer of reconfigurable patterns with a spatial light modulator. Proceedings of SPIE, 2013, , .	0.8	9
50	High-speed video study of laser-induced forward transfer of silver nano-suspensions. Journal of Applied Physics, 2013, 114, .	1.1	55
51	Laser Forward Transfer of Functional Materials for Digital Fabrication of Microelectronics. Journal of Imaging Science and Technology, 2013, 57, 40404-1-40404-8.	0.3	25
52	Enhancement of carrier-mediated ferromagnetism in Zr/Fe-codoped In2O3 films. Applied Physics Letters, 2012, 100, 142403.	1.5	8
53	Room temperature ferromagnetism in transparent Fe-doped In2O3 films. Applied Physics Letters, 2012, 100, .	1.5	31
54	Realization of metamaterial structures by non-lithographic processes. Proceedings of SPIE, 2012, , .	0.8	3

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55	Optimization of laser printing of nanoparticle suspensions for microelectronic applications. Applied Physics A: Materials Science and Processing, 2012, 106, 471-478.	1.1	53
56	Laser-Printed and Processed LiCoO2 CathodeThick Films for Li-Ion Microbatteries. Journal of Laser Micro Nanoengineering, 2012, 7, 320-325.	0.4	36
57	Laser forward transfer for digital microfabrication. , 2011, , .		3
58	F-doped SnO2 thin films grown on flexible substrates at low temperatures by pulsed laser deposition. Thin Solid Films, 2011, 520, 497-500.	0.8	18
59	Laser forward transfer based on a spatial light modulator. Applied Physics A: Materials Science and Processing, 2011, 102, 21-26.	1.1	46
60	Thermal expansion studies of indiumâ€“iron oxide. Physica Status Solidi (B): Basic Research, 2011, 248, 928-930.	0.7	4
61	Printing Thin Films by Laser Decal Transfer. , 2011, , .		0
62	Laser printing of multi-layered polymer/metal heterostructures for electronic and MEMS devices. Applied Physics A: Materials Science and Processing, 2010, 99, 711-716.	1.1	40
63	Threeâ€Dimensional Printing of Interconnects by Laser Directâ€Write of Silver Nanopastes. Advanced Materials, 2010, 22, 4462-4466.	11.1	137
64	Laser-printed interdigitated Ag electrodes for organic thin film transistors. Journal Physics D: Applied Physics, 2010, 43, 085101.	1.3	30
65	Fabrication of terahertz metamaterials by laser printing. Optics Letters, 2010, 35, 4039.	1.7	50
66	Laser forward transfer of silver electrodes for organic thin-film transistors. Applied Physics A: Materials Science and Processing, 2009, 96, 441-445.	1.1	42
67	Laser decal transfer of freestanding microcantilevers and microbridges. Applied Physics A: Materials Science and Processing, 2009, 97, 513-519.	1.1	49
68	Transparent conducting F-doped SnO2 thin films grown by pulsed laser deposition. Thin Solid Films, 2008, 516, 5052-5056.	0.8	190
69	Pulsed laser deposition of Zrâ€“N codoped p-type ZnO thin films. Applied Physics A: Materials Science and Processing, 2008, 93, 593-598.	1.1	13
70	Optimization of F-doped SnO2 electrodes for organic photovoltaic devices. Applied Physics A: Materials Science and Processing, 2008, 93, 521-526.	1.1	42
71	Laser decal transfer of electronic materials with thin film characteristics. Proceedings of SPIE, 2008, , .	0.8	22
72	<title>Applications of laser direct-write for embedding microelectronics</title>. , 2007, , .		11

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73	Assembly and integration of thin bare die using laser direct-write. , 2007, , .		9
74	Fabrication of Zrâ€"N codoped p-type ZnO thin films by pulsed laser deposition. Applied Physics Letters, 2007, 90, 203508.	1.5	37
75	Laser Forward Transfer of Electronic and Power Generating Materials. , 2007, , 339-373.		15
76	Laser-printed thick-film electrodes for solid-state rechargeable Li-ion microbatteries. Journal of Power Sources, 2007, 165, 413-419.	4.0	92
77	Functionalization of Indium Tin Oxide. Langmuir, 2006, 22, 11113-11125.	1.6	59
78	Transparent Conducting Oxide Films. , 2006, , 239-260.		4
79	Laser Transferable Polymer-Ionic Liquid Separator/Electrolytes for Solid-State Rechargeable Lithium-Ion Microbatteries. Electrochemical and Solid-State Letters, 2006, 9, A69-A71.	2.2	35
80	Laser printing of nanocomposite solid-state electrolyte membranes for Li micro-batteries. Applied Surface Science, 2006, 252, 8212-8216.	3.1	40
81	Laser-sintered mesoporous TiO2 electrodes for dye-sensitized solar cells. Applied Physics A: Materials Science and Processing, 2006, 83, 73-76.	1.1	92
82	Laser direct-write of embedded electronic components and circuits. , 2005, , .		16
83	Transparent conducting Sb-doped SnO2 thin films grown by pulsed-laser deposition. Applied Physics Letters, 2004, 84, 218-220.	1.5	163
84	Polymer Electrodes for Flexible Organic Light-Emitting Devices. Materials Research Society Symposia Proceedings, 2004, 814, 108.	0.1	1
85	Dye-sensitized solar cells using laser processing techniques. , 2004, , .		4
86	Application of laser printing to mammalian cells. Thin Solid Films, 2004, 453-454, 383-387.	0.8	200
87	Rapid prototyping of micropower sources by laser direct-write. Applied Physics A: Materials Science and Processing, 2004, 79, 783-786.	1.1	39
88	Laser direct write of planar alkaline microbatteries. Applied Physics A: Materials Science and Processing, 2004, 79, 417-420.	1.1	16
89	Laser processing of nanocrystalline TiO2 films for dye-sensitized solar cells. Applied Physics Letters, 2004, 85, 464-466.	1.5	85
90	Laser Printing of Pluripotent Embryonal Carcinoma Cells. Tissue Engineering, 2004, 10, 483-491.	4.9	268

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91	<title>Application of laser direct-write techniques for embedding electronic and micropower components</title>. , 2004, , .		10
92	<title>Manufacture of mesoscale energy storage systems by laser-direct write</title>. , 2004, , .		1
93	Anisotropic in-plane strain in W-doped (Ba, Sr)TiO 3 thin films deposited by pulsed-laser deposition on (001)MgO. Applied Physics A: Materials Science and Processing, 2003, 76, 841-846.	1.1	17
94	Synthesis of In2O3â€"Sc2O3 transparent conducting oxide films. Applied Surface Science, 2003, 208-209, 611-614.	3.1	9
95	Effect of annealing on the electrical properties and morphology of a conducting polymer used as an anode in organic light-emitting devices. Journal of Polymer Science, Part B: Polymer Physics, 2003, 41, 2522-2528.	2.4	62
96	Anode material based on Zr-doped ZnO thin films for organic light-emitting diodes. Applied Physics Letters, 2003, 83, 3809-3811.	1.5	77
97	High Quality Sn-Doped In2O3 Films Grown by Pulsed Laser Deposition for Organic Light-Emitting Diodes. Materials Research Society Symposia Proceedings, 2003, 780, 161.	0.1	0
98	Highly oriented indium tin oxide films for high efficiency organic light-emitting diodes. Journal of Applied Physics, 2002, 91, 5371-5376.	1.1	51
99	Enhanced superconductivity in metallic oxides near the metal-insulator transition. Physical Review B, 2002, 66, .	1.1	12
100	Synthesis of bulk In2O3â€"Sc2O3 and their transparent conducting oxide films. Journal of Applied Physics, 2002, 92, 227-229.	1.1	11
101	Cell-by-cell construction of living tissue. , 2002, , .		3
102	Highly oriented indium tin oxide thin films for organic light-emitting diodes. , 2002, , .		1
103	Molecular organic light-emitting diodes using highly conducting polymers as anodes. Applied Physics Letters, 2002, 80, 3844-3846.	1.5	325
104	Epitaxial growth of Al-doped ZnO thin films grown by pulsed laser deposition. Thin Solid Films, 2002, 420-421, 107-111.	0.8	173
105	Doped ZnO thin films as anode materials for organic light-emitting diodes. Thin Solid Films, 2002, 420-421, 539-543.	0.8	206
106	Picoliter-Scale Protein Microarrays by Laser Direct Write. Biotechnology Progress, 2002, 18, 1126-1129.	1.3	81
107	Transparent conducting Zr-doped In2O3 thin films for organic light-emitting diodes. Applied Physics Letters, 2001, 78, 1050-1052.	1.5	114
108	New Insight into Enhanced Superconductivity in Metals near the Metal-Insulator Transition. Physical Review Letters, 2001, 87, 197004.	2.9	49

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109	Novel Laser-Based Deposition of Active Protein Thin Films. Langmuir, 2001, 17, 3472-3479.	1.6	126
110	Indium tin oxide thin films grown on flexible plastic substrates by pulsed-laser deposition for organic light-emitting diodes. Applied Physics Letters, 2001, 79, 284-286.	1.5	242
111	<title>Transparent conducting indium tin oxide thin film grown on flexible substrate by pulsed-laser deposition for organic light-emitting devices</title>. , 2001, , .		1
112	Zirconium-doped indium oxide thin films for organic light-emitting diodes. , 2001, , .		0
113	Presence of a pseudo-gap feature in the density of states of disordered W/Si alloys. Physica C: Superconductivity and Its Applications, 2001, 364-365, 427-429.	0.6	1
114	Coulomb interaction in disordered metals and HTSC. Physica C: Superconductivity and Its Applications, 2001, 364-365, 471-474.	0.6	7
115	Effect of film thickness on the properties of indium tin oxide thin film grown by pulsed-laser deposition for organic light-emitting diodes. , 2000, 3933, 140.		2
116	Effect of aluminum doping on zinc oxide thin films grown by pulsed laser deposition for organic light-emitting devices. Thin Solid Films, 2000, 377-378, 798-802.	0.8	310
117	Growth of epitaxial doped strontium sulfide thin films by pulsed laser deposition. Thin Solid Films, 2000, 377-378, 803-808.	0.8	18
118	Transparent conducting films of In2O3â€“ZrO2, SnO2â€“ZrO2 and ZnOâ€“ZrO2. Thin Solid Films, 2000, 377-378, 750-754.	0.8	42
119	Optical and electrical properties of transparent conducting In₂O₃â€“ZrO₂ films. Journal of Materials Research, 2000, 15, 21-24.	1.2	24
120	Transparent conducting films of ZnOâ€“ZrO2: Structure and properties. Journal of Applied Physics, 2000, 88, 6564-6566.	1.1	53
121	Effect of film thickness on the properties of indium tin oxide thin films. Journal of Applied Physics, 2000, 88, 6021-6025.	1.1	298
122	Transparent conducting aluminum-doped zinc oxide thin films for organic light-emitting devices. Applied Physics Letters, 2000, 76, 259-261.	1.5	437
123	Epitaxial growth of Zn2Y ferrite films by pulsed laser deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 3111-3114.	0.9	5
124	Electrical and optical properties of indium tin oxide thin films grown by pulsed laser deposition. Applied Physics A: Materials Science and Processing, 1999, 69, S447-S450.	1.1	62
125	Electrical, optical, and structural properties of indiumâ€“tinâ€“oxide thin films for organic light-emitting devices. Journal of Applied Physics, 1999, 86, 6451-6461.	1.1	1,130
126	Indium tin oxide thin films for organic light-emitting devices. Applied Physics Letters, 1999, 74, 3444-3446.	1.5	343